

Remarks

Claims 1-19 are pending in the application, and each is rejected. By this paper, claims 1, 7, 8 and 14 are amended. Based on the following, consideration of the amended claims and reconsideration of the remaining claims are requested.

Claim Objections

The Examiner objected to claim 7 because of an informality, indicating that the term "type" should be deleted. By this paper, claim 7 is amended to delete the objected-to term.

Claim Rejections—35 U.S.C. § 102

The Examiner rejected claims 1, 2, 5-8 and 12-19 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,258,651 (Sherman). The MPEP states that "'a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.'" MPEP § 2131, 8th ed., Rev. 1 (citation omitted). The MPEP further states that "'the identical invention must be shown in as complete detail as is contained in the claim.'" *Id.* (citation omitted). Because claims 1, 2, 5-8 and 12-19 each contain elements that are neither expressly nor inherently described in Sherman, it is submitted that none of these claims is anticipated by that reference.

At the outset, it is noted that claims 1, 8 and 14 have been amended to more particularly point out and distinctly claim the subject matter of the invention. For example, claims 1, 8 and 14 are each amended to recite that "*at least a portion of the clutch assembly is disposed on a hub portion of the generator....*" (Emphasis added.) This change is fully supported by the specification as filed. In addition, amended claim 1 recites "a clutch assembly having a first portion coupled to said generator such that the first portion can be rotated by said generator regardless of the direction of rotation of said generator...." No such element is

found, either expressly or inherently, in Sherman. Sherman describes the use of a motor generator assembly 14 that includes a rotor 46, having a hub 44. (Col. 3, ll. 23-25; Figure 1.) In addition, the hub 44 is attached to an inner race 54 of a one-way device 56, which also has an outer race 58 connected to a friction brake 32. (Col. 3, ll. 28-31.) In particular, the friction brake 32 has a plurality of friction discs 60 connected to the outer race 58 of the one-way device 56. (Col. 3, ll. 31-32.) The use of the one-way device 56 means that when the motor generator 14 is rotating in one direction, the use of the friction brake 32 will have no effect; this is because the one-way device 56 will be in an "overrun" condition. That is, the one-way device 56 will allow the motor generator 14 to spin freely regardless of the application of the friction brake 32.

As specifically described in Sherman, "[w]hen the clutch 34 is engaged, the one-way device 56 will permit the planetary sun gear 42 to overrun the brake 32 such that if the brake 32 is engaged, it will not interfere with the direct drive condition of the planetary gear arrangement." (Col. 5, ll. 18-22.) In the direct drive condition, the planetary gear arrangement 12 rotates with a 1:1 ratio. (Col. 5, ll. 17-18.) Thus, when the motor generator 14 (which is connected to the sun gear 42) rotates in the same direction as the ring gear 36 (which is connected to the engine) the one-way device 56 renders the friction brake 32 completely ineffective. This is in contrast to amended claim 1 of the present application which recites a first portion of a clutch assembly that can be rotated by the generator regardless of the direction of rotation of the generator. Amended claim 1 thus contains elements which are neither expressly nor inherently described in Sherman, and Sherman does not show the identical invention in as complete detail as is contained in amended claim 1. Therefore, with regard to amended claim 1, the MPEP definition of anticipation is not met.

Claim 1 is the base claim for claims 2 and 5-7. Each of these dependent claims contains all of the limitations of amended claim 1, as well as additional limitations which further distinguish it from the cited reference. For example, claim 6 recites "a motor which cooperates with said generator and said engine to power said drive system." No such motor is either expressly or inherently described in Sherman. Indeed, Sherman teaches the use of a

combined motor generator 14, not a generator and a separate motor which cooperates with the generator, as is specifically recited in claim 6 of the present application. Similarly, amended claim 7 recites that "said motor, said engine, and said generator are arranged in a power-split configuration." As noted above, Sherman does not describe the use of a motor and a generator, but rather, only describes the use of a single motor generator unit. Therefore, Sherman cannot inherently describe a power-split configuration that contains a motor, an engine, and a generator. Because claims 2 and 5-7 each contain all of the limitations of amended claim 1, as well as additional limitations which further distinguish them from the cited reference, none of these dependent claims is anticipated by Sherman.

Similar to amended claim 1, amended claim 8 recites "at least one divider plate coupled to said rotor assembly such that the at least one divider plate can be rotated by said rotor assembly regardless of the direction of rotation of said rotor assembly...." As noted above, no such elements are expressly or inherently described by Sherman. Therefore, with regard to amended claim 8, the MPEP definition of anticipation is not met. Claims 12 and 13 each depend from amended claim 8, and thus contain all of the limitations of amended claim 8. Claims 12 and 13 each contain additional limitations which further distinguish them from the cited reference. Therefore, with regard to claims 12 and 13, the MPEP definition of anticipation is not met.

Sherman describes the use of the brake 32 as a means to multiply engine torque to provide improved starting performance for the vehicle. (Col. 3, ll. 5-18.) In particular, Sherman states that "the brake 32 will be engaged either completely or slippingly to assist the reaction at the sun gear 42, thereby providing increased transmission input speed at the sprocket 30." (Col. 4, ll. 65-69.) Thus, Sherman describes a method of using the friction brake 32 to increase the output speed of the transmission; this is in direct contrast to claim 14 of the present application. Claim 14 specifically recites a method that includes "selectively activating said generator effective to produce a negative torque which lowers said speed of said engine...." No such element is expressly or inherently described in Sherman. Therefore, with regard to claim 14, the MPEP definition of anticipation is not met.

Claim 14 is the base claim for claims 15-19. Each of these dependent claims contains all of the limitations of claim 14, as well as additional limitations which further distinguish it from the cited reference. Therefore, with regard to claims 15-19, the MPEP definition of anticipation is not met.

Claim Rejections—35 U.S.C. § 103

The Examiner rejected claims 3 and 4 under 35 U.S.C. § 103(a) as being unpatentable over Sherman in view of U.S. Patent No. 6,054,776 (Sumi). The Examiner also rejected claims 9-11 under 35 U.S.C. § 103(a) as being unpatentable over Sherman in view of U.S. Patent No. 3,646,835 (Ito et al.) The MPEP states that in order to establish *prima facie* obviousness, all of the claim limitations of an invention must be taught or suggested by the prior art. MPEP § 2143.03, 8th ed., Rev. 1.

As discussed above, in regard to the anticipation rejections, amended claims 1 and 8 each contain elements which are neither expressly nor inherently described in Sherman. In addition, amended claims 1 and 8 each contain limitations which are neither taught nor suggested by Sherman, either alone, or in combination with any of the cited references. For example, the combination of Sherman and Sumi does not teach or suggest "a clutch assembly having a first portion coupled to said generator such that the first portion can be rotated by said generator regardless of the direction of rotation of said generator...." Neither does Sherman and Sumi teach or suggest "at least one divider plate coupled to said rotor assembly such that the at least one divider plate can be rotated by said rotor assembly regardless of direction of rotation of said rotor assembly," as is specifically recited in amended claim 8. Rather, Sherman teaches the use of a one-way device interposed between a friction brake and the hub of a rotor. Having a portion of a clutch assembly, such as a divider, that can be rotated by a generator regardless of the direction of rotation, is inconsistent with the use of a one-way device as taught by Sherman. Indeed, modifying Sherman to remove the one-way device would render it unsatisfactory for its intended purpose. As stated in the MPEP, when a modification to a device renders it unsatisfactory for its intended purpose, a lack of suggestion

or motivation to make the modification is indicated. MPEP § 2143.01, 8th ed., Rev. 1. Therefore, with regard to amended claims 1 and 8, the MPEP requirements for *prima facie* obviousness are not met.

Amended claim 1 is the base claim for claims 3 and 4, and amended claim 8 is the base claim for claims 9-11. Each of these dependent claims contains all of the limitations of its respective base claim, as well as additional limitations which further distinguish it from the cited references. Therefore, with regard to claims 3 and 4 and 9-11, the MPEP requirements for *prima facie* obviousness are not met. Accordingly, allowance of each of the pending claims is requested.

Respectfully submitted,
James Paul McCarthy

By Marc F. Malooley
Marc F. Malooley
Reg. No. 50,624
Attorney/Agent for Applicant

Date: March 31, 2004

BROOKS KUSHMAN P.C.
1000 Town Center, 22nd Floor
Southfield, MI 48075-1238
Phone: 248-358-4400
Fax: 248-358-3351